

ABSTRACT OF THE DISCLOSURE

A group of network devices, such as Ethernet switches, are logically configured as a single cluster, with one commander device and one or more member devices. Each network device capable of belonging to a cluster transmits data packets containing cluster capability information to its neighbors. Each network device capable of belonging to a cluster that receives data packets containing cluster capability information maintains a database containing information about its cluster-capable neighbor devices. The commander device of a cluster is the point-of-contact through which the cluster is managed. The commander device maintains a database of neighbors of the entire cluster. Upon user request, the commander device displays a list of cluster neighbors and notes which ones may be added to the cluster. When the user adds a device to the cluster, that device immediately sends its database of discovered neighbors to the commander device. The commander device adds those neighbors to its database and displays them at the user's next request. Thus, a user is informed of which switches are available to be added to a cluster at any given time.